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STAT

STAT

Ref: 552-OD-188

8 May 1964

STAT

Post Office Box 9474
Rosslyn Station
Arlington, Virginia 22209

STAT

Subject: Projects 552 and 552A

Gentlemen:

Enclosed is our print #800521 Control Panel Layout for projects 552 and 552A. Also attached is the Electrical and Optical Control Lists for these projects 552 and 552A respectively.

Your immediate perusal and approval will be greatly appreciated.

Very truly yours,

STAT

Project Engineer

WB/de
Encls: 800521 (1)
3 lists

Cert. #694365

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TITLE / FUNCTION	DESCRIPTION / REMARKS	PART NUMBER SWITCH & KEY/KNOB (INCLUDE CIRCUIT NO.) (MFR. PART NO. S301	552 X = WHERE USED	55?A	571
ON CONTROL CABINET PANEL: (EXCEPT AS NOTED)					
(1) POWER ON-OFF WITH RED "ON" LAMP	ROCKER (2) POS MAINT. CONT. NEON LAMP, RED SW. BUTTON	DPDT	X	X	X
(2) OBJECTIVE LENS SEL. RIGHT { MAG QTY } AS REQ LEFT	PUSHBUTTON, STAYS DEPRESSED BUT INTERLOCKED FOR ONLY ONE POS. DEPRESSED. TO ALLOW RANDOM SELECTION OF RANGE OR LENS.	12 PDT S105 - S112	X (4) INDICATES MAG RANGE	X (4) INDICATES MAG RANGE	X (3) INDICATES OBJ MAG.
(3) ZOOM MAGNIFICATION RIGHT } "INCREASE" (3) POS LEFT } "DECREASE"	ROCKER (3) POS: MOM.-OFF-MOM. CONTROLS ZOOM MAGNIFICATION IN EACH OBJ ASY.	DPDT S102 - S109	X	X	X INCLUDES "BOTH" SWITCH
(4) VACUUM FILM HOLDDOWN RIGHT } "HOLDDOWN" (3) POS. LEFT } "ADVANCE"	ROCKER (2) POS. MAINT. CONT. "HOLDDOWN" ENERGIZES BRAKES TO PREVENT FILM MOTION.	S113, S114 4PDT	X	X	
(5) FILM DIRECTION "LEFT" "OFF" "RIGHT"	(3) POS. ROTARY MAINT CONT. SELECTS DIRECTION AND TURNS "ON" FILM DRIVE.				X
(6) FILM SPEED	POT. ADJUSTS RATE OF FILM WINDUP.				X
(7) FRAME SELECTOR	(3) POS. ROTARY, MAINT CONT				X
(8) EMULSION SELECTOR RIGHT } "UP" (2) POS LEFT } "DOWN"	ROCKER (2) POS. MAINT. CONT SERVES AS "MEMORY" TO REVERSE FILM DRIVE MOTOR AS REQ. FOR POSITIVE OR NEGATIVE FILM WINDUP.				X
(9) LOOP FUNCTION RIGHT } "WITHDRAWN" LEFT } "LOCK" (TANDEM-FILM LOAD) "RETURN"	(5) POS. ROTARY MAINT CONT SELECTS RIGHT OR LEFT FILM TAKE UP FOR LOCKED IN OR WITHDRAWABLE LOOP. - INTERLOCKED WITH VACUUM HOLDDOWN	S105 ROTARY 5 POSITION	X	X	
(10) LOOP FORM "FORM"	ROCKER (2) POS. MOM-OFF, WHEN DEPRESSED ENERGIZES LOOP FORM MECH. CAN BE STOPPED AT ANY POINT TO TO MAX.	S116 DPDT	X	X	
(11) GEN. ILLUM. OFF-ON RIGHT } "OFF" + "ON" LAMPS LEFT } "ON"	VENDOR SUPPLIED TOGGLE-BAT (PAIR) TURNS "ON" (ONE) (TWO) CHANNEL EACH CHANNEL SEPARATELY CONTROLLED.	RICHARD'S	X	X	X
(12) GEN. ILLUM. LEVEL RIGHT LEFT	VENDOR SUPPLIED POT. CONTROLS GEN. ILLUM LEVEL THRU ~20:1 RANGE TO MAX EACH CHANNEL.	RICHARD'S	X	X	X
(13) HIGH INTENSITY LIGHT SOURCE RIGHT } "OFF" LEVEL LEFT }	AUTOTRANSFORMER, OUTER KNOB OF CONCENTRIC GROUP, SEE ALSO (14) CONTROLS HIGH INT. LIGHT SOURCE BRIGHTNESS ZERO TO MAX. EACH CHANNEL	T106, T107	X	X	X NOT CONCENTRIC
(14) RETICLE BRIGHTNESS LEVEL RIGHT } LEFT }	AUTOTRANSFORMER, INNER KNOB OF CONCENTRIC. CONTROLS DOT RETICLE BRIGHTNESS FROM ZERO TO MAX. EACH CHANNEL.	T104, T105	X	X	X NOT CONCENTRIC
(15) POINT MARK ON-OFF + "ON" LAMP - RED	ROCKER (2) POS. MAINT-CONT. (1) SW FOR BOTH LASER POWER SUP. SHUT DOWN LASER FOR SAFETY, LIFE.	2PDT	X		
(16) POINT MARK LEVEL RIGHT } "0" TO "100" LEFT }	AUTOTRANSFORMER VENDOR SUPPLIED. ADJUSTS LASER OUTPUT TO ADAPT POINTMARK DEVICE TO FILM DENSITY.		X		
(17) POINT MARK FIRE RIGHT } "FIRE" LEFT }	(2 READY LIGHTS (YELLOW)) ROCKER (3) POS. MOM-MAINT-MOM ARRANGE FOR CONSPICUOUS R-L OPER. WITH SINGLE SW. FIRES LASER TO MARK FILM, CLOSES SAFETY SHUTTER IN LASER.	DPDT	X		
(18) POINT MARK INDEX RIGHT } "0" THRU "99" + OPEN + BLANK LEFT }	(2) LEDEX SELECTOR SW (12) POS. 2R GROUP, MASTER OR SLAVE IN OBJ. ASY TO AUTOMATICALLY ADVANCE (1) POINT AFTER LASER (POINT MARK) FIRES. TO ALLOW MANUAL SETTING OF ALL POSITIONS DIGIT BY DIGIT.		X		
(19) SCAN SPEED RANGE "SLOW" "FAST"	ROCKER (2) POSITION MAINT CONT. CONTROLS EITHER SPEED RANGE IN EACH CHANNEL (SWITCHES BOTH X&Y OF A CHANNEL) JOY STICK TO BE NULLED FOR LOW TO HIGH CHANGE, BUT NOT HIGH TO LOW CHANGE	S118 DPDT	X	X	X ON JOY STICK PUSHBUTTON IN "FAST"
CHANNEL SELECTOR PANEL "LEFT" - "BOTH" "RIGHT"	ROCKER (3) POS. MAINT (CONT. PERMITS EITHER OR BOTH SCANNING MOTIONS TO BE GENERATED FROM JOY STICK.	S119 DPDT	X	X	X ON JOY STICK
(20A) CHANNEL MOTION JOYSTICK "BOTH" - "RIGHT"	PUSHBUTTON (2) POS MAINT. "BOTH" - MOM. "RIGHT" ONLY WORKS IN "BOTH" PANEL MODE		X JOY STICK	X JOY STICK	
(21) CHANNEL COUPLING "COUPLE" - "UNCOUPLE"	ROCKER (2) POS MAINT (CONT.) COUPLE CONNECTS (1) OSCILLATOR TO CORRESPONDING STEPPING TRANSLATORS (XTOX, YTOY).	S117 DPDT	X	X	
(22) "X" AXIS REVERSION RIGHT } "NORMAL" LEFT } "REVERT"	ROCKER (2) POS. MAINT. CONT. INTERCHANGES + AND - X PERMITTING VIEWING OF REVERTED PHOTOS IN EITHER CHANNEL.	2PDT	X	X	
(23) DATA READOUT POWER "ON-OFF"	ROCKER (2) POS. MAINT. CONT (1) SW TURNS (4) AXES "ON"	DPDT	X	X ON (1) SYSTEM	X ON WRITING TOP
(24) DATA READOUT RECORD RIGHT } "RECORD" LEFT }	ROCKER (3) POS. MOM-OFF-MOM. WILL PERMIT PERMANENT RECORD OF POSITIONAL DATA OF OBJ. & PO. POINT.	DPDT	X	X ON (1) SYSTEM	X ON WRITING TOP
(25) DATA READOUT ZERO RESET RIGHT } "ZERO RESET" LEFT }	ROCKER (3) POS MOM-OFF-MOM INTRODUCES ZERO DISPLAY IN ALL DIGITS OF DESIRED AXIS.	DPDT	X	X ON (1) SYSTEM	X ON WRITING TOP

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(26) DATA READOUT 50,000 SET RIGHT / LEFT "PRESET 50,000"	ROCKER ~~(3) POS. MOM-OFF-MOM.~~ INTRODUCES DISPLAY OF 50,000 ON DESIRED AXIS.	DPDT			X ON WRITING TOP
(27) DATA READOUT CHANNEL SELECT "LEFT" - "RIGHT"	ROCKER (2) POS. MAINT CONT. PERMITS BOTH CHANNELS TO SHARE A SINGLE PAIR OF DIGITAL DISPLAYS	DPDT			X ON WRITING TOP
ON WRITING TOP: SEE ALSO (23) (24) (25) (26) (27) ABOVE (19)					
(1) X-Y SCANNING CONTROL (ONE CONTROL FOR BOTH CHANNELS)	OPTO DESIGNED - MAN. JOY STICK WITH POT. + SWITCHES TO CONTROL SCAN MOTOR SPEED & DIRECTION. DOES NOT ROTATE.				X
(2) X-Y SCANNING CONTROL (DUAL CONTROL - ONE EACH AXIS)	OPTO DESIGNED - MAN JOY STICK WITH POT. CONTROL SCAN MOTOR SP + DIR. EACH CHANNEL "STICK" CAN BE FINGER ROTATED ABT CENTRAL ELEMENT ARE COUPLED AND ARE DRIVEN BY HANDLE (See ALSO 20A)		X	X	
(3) SCAN AXIS ROTATION "0°, 90°, 180°, 270°"	4 POS. ROTARY SW ELECTRICALLY ROTATES SCAN AXES IN 90° INCREMENTS WITH RESPECT TO JOY STICK PICKOFF AXES.	ROTARY			X
(4) SCAN JOG	4 POS. MOM. "TETRA SWITCH" PROVIDES MOM. SIGNAL TO MOVE SCAN MOTORS A SMALL INCREMENT. "ROTATES" WITH SCAN AXIS ROTATES.				X
ON EYEPIECE ASSY:					
(1) IMAGE ENHANCER POWER "ON" "OFF"	ROCKER (2) POS. MAIN. CONT. TURNS "ON" & "OFF" IMAGE ENHANCER TURNING "OFF" ENHANCER ALLOWS EYEPIECE FOCUSING ON FIBER CABLE.	DPDT	X	X	X
(2) IMAGE ENHANCER FINE PHASING RIGHT / LEFT "FINE PHASING"	POT (PAIR) ADJUSTMENT CAUSES SMALL ROTATIONAL PHASE CHANGE BETWEEN CORRESPONDING ENHANCER MOTORS PROVIDING BEST POSSIBLE IMAGE QUALITY THROUGH SCANNING MECHANISM.		X	X	X

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TITLE / FUNCTION	DESCRIPTION / REMARKS	552	552A	571
LOCATED ON EYEPIECE ASSEMBLY:				
① EYE STATIONS "NORMAL" "REVERSED"	ALLOWS OPERATOR TO INTERCHANGE EYE STATIONS WITH RESPECT TO OBJECTIVE LENSES. "NORMAL" POSITION PERMITS RIGHT EYE TO VIEW THROUGH RIGHT OBJECTIVE LENS. IN "REVERSED" MODE RIGHT EYE SEES INFORMATION THROUGH LEFT OBJECTIVE LENS. "REVERSED" MODE ADJUSTMENT CAN BE MADE ONLY IN THE STEREO MODE OF USE.	X	X	X
② CHANNEL SELECTOR "STEREO" "SUPERIMPOSED"	IMAGES FROM EITHER CHANNEL ARE SEPARATED OR COMBINED IN "STEREO" OR "SUPERIMPOSED" MODES, RESPECTIVELY. BECAUSE OF INTERNAL MECHANICAL LIMITATIONS EYESTATIONS MUST BE "REVERSED" FOR USE OF "SUPERIMPOSED" MODE. SUPERIMPOSED MODE WILL BE HELPFUL IN ADJUSTING IMAGE MAGNIFICATION AND ROTATION BETWEEN CHANNELS.	X	X	X
③ IMAGE SELECTOR LEFT { "NORMAL" "OFF" "REJECTION" RIGHT	IMAGE FROM LEFT OR RIGHT OBJECTIVE MAY BE REVERSED, TURNED OFF OR TRANSMITTED UNALTERED BY USE OF THIS CONTROL. CHANNELS ARE CONTROLLED INDEPENDENTLY. THE REVERSED IMAGE HAS LEFT & RIGHT INTERCHANGED IN THE UNROTATED IMAGE. IMAGE "OFF" MODE FINDS USE IN CHANNEL SELECTOR "SUPERIMPOSED" MODE BY REMOVING ONE OF TWO IMAGES COMBINED IN THAT STATE. THEREFORE BINOCULAR MONOSCOPIC VIEWING IS OBTAINED BY TURNING "OFF" THE UNWANTED CHANNEL.	X	X	X
④ IMAGE ROTATION LEFT { "IMAGE ROTATION" (INTERLOCKED) 1° LEAST COUNT RIGHT	EITHER LEFT OR RIGHT IMAGE MAY BE ROTATED THROUGH 360° MOTION INDEPENDENTLY OF EACH OTHER OR OF OTHER OPTICAL OR ELECTRICAL CONTROLS. ANGULAR READOUT IN 1° INCREMENTS INCREASING AS IMAGE ROTATES CLOCKWISE. AN INTERNAL STOP PERMITS ONLY 360° ROTATION. ROTATING IMAGE DOES NOT ROTATE SCANNING AXIS NOR REVERSION AXIS.	X	X	X
⑤ EYELENS FOCUS LEFT { RIGHT	EACH EYELENS IS INDIVIDUALLY FOCUSED TO SUIT OPERATOR'S VISION BY ROTATING EYELENS MOUNT. FRICTION RETAINS ADJUSTMENT.	X	X	X
⑥ INTERPUPILLARY DISTANCE ADJUSTMENT	BY PUSHING OR PULLING EYELENS MOUNTS HORIZONTALLY EYELENS SEPARATION IS ADJUSTED. A SCALE IS PROVIDED TO READOUT INTERPUPILLARY DISTANCE IN MILLIMETERS.	X	X	X

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